

REMARKS

Claims 42-47, 49-50, 52, 55, 57, 59, 61 and 63 will be pending before the Examiner upon entry of the above amendments. Claims 42, 44, 46-47, and 49-50 are allowed. Claims 51, 53-54, 56, 58, 60 and 62 have been canceled without prejudice, and Applicants reserve the rights to pursue the subject matter in the canceled claims in a related application. Claims 43, 52, 55, 57, 59, 61 and 63 have been amended. Support for the amendment to claim 43 can be found in the specification at, *e.g.*, page 117, lines 12-14. Support for the amendments to claims 52, 55, 57, 59, 61 and 63 can be found in the specification at, *e.g.*, page 113, Table 15B, page 117, Table 15D, and page 431, Table 29. No new matter has been introduced.

Rejection Under 35 U.S.C. § 112, First Paragraph, Written Description

Claims 43, 45, 51, 52, 55, 57, 59, 61, and 63 are rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. In particular, the Examiner has raised the following rejections: (1) claims 43 and 51 are directed to the mature form of SEQ ID NO: 38, however, the specification does not describe the identity of the amino acids present in the mature form; (2) claim 45 recites “encoding the full length complement” and it is unclear what is intended; and (3) claims 52, 55, 57, 59, 61, and 63 are directed to single nucleotide polymorphism coding variants based on Table 29, however, this Table is for Nov15a (SEQ ID NOs: 35 and 36) and not for Nov15b (SEQ ID NOs: 37 and 38), clarification is requested.

Applicants respectfully submit that claim 43 has been amended to recite an isolated polynucleotide comprising a nucleic acid sequence encoding amino acids 337-2721 of SEQ ID NO: 38. The specification teach this at, *e.g.*, page 117, lines 7-14 (Nov15b is a transmembrane protein, amino acids 305-377 is the transmembrane domain – thus, amino acids 337-2721 is the extra-cellular portion of the protein). Claim 51 has been canceled without prejudice.

Claim 45 has been amended to recite an isolated polynucleotide comprising a nucleic acid sequence that is the full length complement of the polynucleotide SEQ ID NO: 37, per the Examiner’s suggestion.

Applicants further submit that Table 29 (page 431) supports the amendments to claims 52, 55, 57, 59, 61, and 63. As shown in Appendix A, SEQ ID NO: 36 and SEQ ID

NO: 38 share significant identity – they only differ at amino acid 435, and SEQ ID NO: 38 lacks amino acids 442-445 of SEQ ID NO: 36. As amended, claims 52, 55, 57, 59, 61 and 63 direct to single nucleotide polymorphism coding variants for amino acids residues 27, 39, 76, 220, 236 and 270 of SEQ ID NO: 38. Such amino acids residues fall into the region that is identical for both SEQ ID NO: 36 and SEQ ID NO: 38. Therefore, although Table 29 is labeled as cSNP and coding variants for Nov15a, such cSNP and coding variants are also apply to SEQ ID NOs: 37 and 38.

In view of the foregoing, Applicants respectfully request that the rejections under 35 U.S.C. § 112, first paragraph, for lacking of written description, be withdrawn.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 52, 55, 57, 59, 61 and 63 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner states that the specified amino acid residues named in the above identified claims are already present in SEQ ID NO: 38 (*e.g.*, the amino acid 27 of SEQ ID NO: 38 is already serine).

Applicants respectfully submit that claims 52, 55, 57, 59, 61 and 63 have been amended. As amended, such claims now are directed to single nucleotide polymorphism coding variants for amino acids residues 27, 39, 76, 220, 236 and 270 of SEQ ID NO: 38. Thus, this rejection has been obviated, and should be withdrawn.

CONCLUSION

Applicants respectfully request that the amendments and remarks made herein be entered and made of record in the file history of the present application. Applicants respectfully submit that the pending claims are in condition for allowance. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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